REMARKS

Claims 12-15, 18-21, and 25-34 are pending. Claims 1-11, 16-17, and 22-24 have been cancelled, and claims 25-34 have been added. Reexamination and reconsideration of this application are respectfully requested. This amendment is being made in conjunction with a Request for Continued Examination.

In the February 17, 2004 Office Action, the Examiner rejected claims 12-24 under 35 U.S.C. §102(b) or, in the alternative, under 35 U.S.C. §103(a), stating that they were either anticipated by or obvious over U.S. Patent No. 4,983,291 to Chau ("the Chau reference"). The Examiner rejected claims 1-11 under U.S.C. § 103(a) as being unpatentable over the Chau reference in light of U.S. Patent No. 6,245,234 to Koo ("the Koo reference"). The Examiner's rejections and objections are respectfully traversed in so far as applicable to the pending claims.

Specifically, with respect to claims 1-11, 17, and 22-24 the Examiner noted that the Applicant should provide evidence of the "unexpected results" of the invention. The Examiner further noted that the Applicant should provide evidence of improved flux under the same conditions as in the Chau reference and in the Koo reference. Attached herewith is a Declaration of John Simonetti Re: Unexpected Results under 37 C.F.R. 1.132, in which the results of experiments with the filtration membrane of the present invention were performed under similar conditions as the Chau and Koo references. As discussed below, the flux achieved by the membranes of the present invention is much superior than that achieved by the prior art membranes. Additionally, the current claims involve use of a propionic salt, along with an amine and water, to prepare a filtration membrane, which is not taught, disclosed or suggested by the cited

references. The membranes of the claimed invention exhibit superior salt flux properties to prior membranes. Claims 12-15, 18-21, 25 and 26 are directed to these filtration membranes and claims 27-34 are directed to methods of producing the membranes.

None of the references cited by the Examiner teach, disclose, or suggest a filtration membrane made with an aqueous amine solution made by mixing a propionic salt, an amine, and water. The Examiner correctly notes that the Chau reference does not disclose the use of propionic acid in the preparation of its filtration membrane. Nor does it disclose the use of a propionic salt. Chemicals such as different acids and salts can react in a variety of different ways with the same reactant. It would not have been obvious that replacing one acid with another would not produce the same result, and it therefore would not have been obvious to use propionic salt in the method of Chau.

In fact, the use of propionic salt in the present invention has the unexpected result of improving the flux characteristics of the filtration membrane. As established by the attached declaration, the flux of the claimed membrane is in the range of about 173 gfd to about 217 gfd under similar conditions as tested in Chau. Simonetti Declaration, Section IV, Example I.I. This is at least about 2.5 times greater than the flux disclosed in Chau. Chau discloses fluxes achieved of 4.4 to 66.7 gfd. The superior results achieved by the method of the present invention would not have been obvious in view of Chau.

Nor does the Koo reference teach, disclose or suggest propionic salt used in an amine solution with an amine and water. The Koo reference merely discloses the addition of a reaction product of a polyfunctional tertiary amine and propionic anhydride

to an aqueous solution including a polyfunctional amine. It does not teach, disclose or suggest the use of propionic acid in preparing a filtration membrane or even that the use of propionic anhydride, let alone that a propionic salt, would increase the flux of a filtration membrane. Therefore, the present claims are not obvious under 35 U.S.C. § 103 or anticipated under 35 U.S.C. §102 by Chau alone or in combination with Koo.

Furthermore, the Koo reference cannot make up for the deficiencies of Chau. The Koo reference discloses fluid fluxes of only as high as about 92 gfd, about 2 times smaller than the fluid fluxes achieved by the present invention. In view of the unexpected results achieved by the present invention, Applicant believes that the claims are allowable.

The Applicant believes that the foregoing amendments place the application in condition for allowance, and a favorable action is respectfully requested.

Respectfully submitted,

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